



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/568,008

03/13/2006

Wilhelm Tobben

14069-00002-US

7345

23416

7590

03/04/2009

CONNOLLY BOVE LODGE & HUTZ, LLP

P O BOX 2207

WILMINGTON, DE 19899

EXAMINER

JACOBSON, MICHELE LYNN

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,008	Applicant(s) TOBBEN ET AL.	
	Examiner MICHELE JACOBSON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/13/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/6/09 has been entered.

Examiner Notes

2. Any objections and/or rejections made in the previous action, and not repeated below, are hereby withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-11 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pophusen et al. U.S. Patent No. 6,541,087 (hereafter referred to as Pophusen) and Turbak et al. U.S. Patent No. 3,833,022 (hereafter referred to as

Turbak) and Sears et al. U.S. Patent Application Publication No. 2002/0000683

(hereafter referred to as Sears).

5. Pophusen teaches a multilayer, biaxially stretched, heat set, coextruded tubular film made from the following layers disposed from outside to inside (Col. 4, lines 25-47, claim 8):

- a. An outer layer G, which substantially consists of aliphatic polyamide or copolyamide and or partially aromatic polyamide or copolyamide (corresponding to applicant's layer A)
- b. An interlayer F having oxygen barrier properties between outer layer G and core layer E (corresponding to applicant's layer B)
- c. A core layer E, which substantially consists of aliphatic polyamide or copolyamide and or partially aromatic polyamide or copolyamide (corresponding to applicant's layer C)
- d. A coupling layer D (corresponding to applicant's layer D)
- e. A polyolefinic interlayer C (optional further layer as in f))
- f. A coupling layer B (corresponding to applicant's layer D)
- g. An inner layer A, which substantially consists of aliphatic polyamide or copolyamide and or partially aromatic polyamide or copolyamide (Corresponding to applicant's layer E)

6. Preferred polyamides for layers A, E and G are recited to be m-xylylenediamine with adipic acid units (MXD6) and hexamethylenediamine with unites of isophthalic and

Art Unit: 1794

terephthalic acid (PA 61/6T). The preferred thickness for the layer A is 2-12 μm . (Col. 5, lines 32,44)

7. The coupling layers B and D each comprise preferably a modified polyolefin. Modified polyolefin in the present context is a homo or copolymer of ethylene or propylene each optionally copolymerized with at least one linear α -olefin having 3 to 8 C atoms, which is grafted with at least one selected monomer from the group consisting of α,β -unsaturated dicarboxylic acids, (such as for example maleic acid, fumaric acid, itaconic acid) their acid anhydrides, acid esters, acid amides or acid imides. Further suitable copolymers are ionomeric copolymers of ethylene and propylene and optionally further linear α -olefins containing 3 to 8 C atoms copolymerized with α,β -unsaturated carboxylic acids and/or the metal salts thereof and/or the alkyl esters thereof or graft polymers of the stated monomers onto polymers or partially saponified ethylene/vinyl ester copolymers, which are optionally graft polymerized with a monomer of the stated acids. In a preferred embodiment, the layer thicknesses of the coupling agent layers B and D are between 1 and 6 μm . The composition of layers B, D may be different or identical. (Col. 6, lines 19-37)

8. Layer F having oxygen barrier properties in particular substantially consists of ethylene/vinyl alcohol copolymers produced by saponification of ethylene/vinyl acetate copolymer. The ethylene content is here preferably between 25 and 47 wt. % and in particular between 29 and 38 wt. %. In a preferred embodiment, the layer thickness of layer F is between 2 and 8 μm , in particular between 3 and 6 μm . The sum of all the layer thicknesses of the coextruded casing is 30 to 80 μm , in particular 35 to 65 μm .

Art Unit: 1794

(Col. 6, lines 38-47) The invention is recited to be suitable for packaging sausage, cheese, pastry and other pasty and liquid foodstuffs. (Col. 7, lines 8-10)

9. Pophusen is silent regarding disposing cellulose fibers in an amount of 0.1-70% by total weight of the layer within the layers of the casing.

10. Turbak teaches that improved synthetic sausage casings can be made by adding fibrous filler material to the material that is employed to form the casing. (Col. 2, lines 51-55) The filler material may be cellulosic and have an average length of between 40 and 110 μm . (Col. 2, line 56, Col. 3, lines 31-32) The fibrous material is recited to increase the modulus of the casing produced. (Col. 3, lines 4-10)

11. Both Pophusen and Turbak are directed towards sausage casings. The stuffing of sausage meat into casings necessarily produces strain on the casing and therefore higher modulus casings that would be less likely to deform or break would be obviously desirable to those of ordinary skill in the art. One of ordinary skill would have been motivated to add cellulose fibers to the polyamide layers recited by Pophusen in order to increase the modulus of the sausage casing produced. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed cellulose fibers as taught by Turbak within the polyamide polymer layers disclosed by Pophusen.

12. The combination of Pophusen and Turbak is silent regarding a means for disposing cellulose fibers in polyamide.

13. Sears teaches improved composites containing cellulosic pulp fibers dispersed in a matrix, wherein the matrix comprises a polymeric material and said cellulosic pulp

Art Unit: 1794

fibers comprise greater than 1% and less than 60% by weight of the composite. (Para. 16) Suitable polymeric material includes polyamides, specifically nylon 6, nylon 12, nylon 66 or mixtures thereof. (Para. 24, 25) The granulated cellulosic fibers typically have an average length of between 0.1 and 6 mm (100-6000 μ m) An advantage of the composition recited is the reduced discoloration in the resultant composite. Prior use of pulp fibers typically resulted in substantial or severe discoloration of the final product. This discoloration is significantly reduced or avoided using the composition of the invention. (Para. 31) One surprising advantage resulting from the invention was the ability to melt blend the polymeric material with pulp fibers at lower temperatures than the melting temperature of the polymeric material. (Para. 44) The composition of the invention is recited to be useful for melt extrusion. (Para. 45)

14. Having established the desirability of disposing cellulose fibers in the polyamide sausage casing of Pophusen, one of ordinary skill would have turned to the teachings of Sears. Pophusen, Turbak and Sears are all related to polymeric materials, and one of ordinary skill in the polymeric sausage casing art would have been expected to rely on the teachings of the polymeric arts since these types of structures comprise polymeric materials. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the teachings of Sears to provide a cellulose fiber reinforced polyamide composition for use as the polyamide layers of Pophusen as suggested by Turbak. Such a casing would have been the same as that claimed by applicant in claims 1-3, 5-11 and 14-20.

Response to Arguments

15. Applicant's arguments filed 1/6/09 have been fully considered but they are not persuasive.

16. Applicant has asserted on pages 7 and 8 that the teachings of Sears are effectively not analogous art and related to “a totally different technical field compared to the present application”. Applicant further states on page 9 of the remarks that “Sears is considered to be clearly inappropriate to be used by a person skilled in the art when dealing casings for foodstuff”. However, it is the examiner's position that artisans working the field of producing *polymeric* sausage casings (such as those disclosed by Pophusen, Turbak and applicant) are first and foremost *polymer* chemists, not merely butchers or sausage makers, and would therefore reasonably turn to the teachings available in the field of *polymer* chemistry. Applicant has asserted that because the teachings of Sears are directed towards composites for use in injection molding one of ordinary skill would not have been apprised of their utility for other applications. However, this is not persuasive since those of ordinary skill in the polymeric arts understand that polymeric materials can find utility in a multitude of applications. As discussed above, one of ordinary skill would have been motivated by the utility of fibrous cellulose material in sausage casings to increase modulus disclosed by Turbak to incorporate fiber reinforced polyamide such as that taught by Sears in the casing of Pophusen.

17. Alternatively, *in arguendo*, if the examiner is persuaded that Sears is not included as part of the “casing for foodstuff” arts, one of ordinary skill in the sausage casing arts

Art Unit: 1794

would still have turned to the teachings of Sears in order to provide a fiber reinforced polyamide as motivated by Turbak since the teachings of Sears meet a need identified in the prior art. MPEP 2141.01 I. states ""Under the correct analysis, any *need* or problem known in the field of endeavor at the time of the invention and addressed by the patent [or application at issue] can provide a reason for combining the elements in the manner claimed." KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1397 (2007). Thus a reference in a field different from that of applicant's endeavor may be reasonably pertinent if it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his or her invention as a whole."

18. Applicant asserts on page 8 that "a person skilled in the art would be prevented from using the teaching of Sears to merely mix cellulosic material and polyamide, since pure polyamide casings are not appropriate according to Toshiaki if smoke properties are an issue". This argument is not germane since polyamide mixed with cellulose fibers would not be *pure* polyamide as suggested by applicant. Applicant goes on to state that "there is no hint in Toshiaki to use the cellulose acetate propionate". This statement is complete contradictory to the entirety of the teachings of Toshiaki and currently irrelevant based on the new grounds of rejection presented in the instant office action. Applicant's arguments at the bottom of page 7 and top of page 8 of the remarks are disorganized and unclear and therefore not found persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571)272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

Michele L. Jacobson
Examiner /M. J./
Art Unit 1794